

Appl. No. 10/633,807
Amdt. dated April 20, 2006
Reply to Office Action of January 30, 2006

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REMARKS/ARGUMENTS

Claims 1 – 4 and 10 – 20 remain in this application. Claims 5 – 9 are withdrawn from consideration as directed to non-elected species. Claims 21 – 50 are withdrawn from consideration as directed to a non-elected invention.

Reconsideration and reexamination is respectfully requested.

Claims 1 – 4, 10 – 12 and 14 – 17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent Number 5,709,620 (Reinprecht) and applicant's admission of the prior art as set forth in the previous office action. The rejection is respectfully traversed.

Applicant's invention is directed to a method and apparatus for training sports skills in which, when applied to the game of tennis, a "player 10 can be trained to return the tennis balls away from the opponent(s) 12, thereby teaching tennis player 10 to play the tennis court and training placement memory in the brain of player 10 in addition to training muscle memory of player 10. Use of opponent(s) 12 arranged to occupy selected locations on the opposite side of the tennis court can also improve the reaction time of player 10 by requiring player 10 to observe to position of opponent(s) 12 and decide where to return the tennis ball. Thus, player 10 can be trained to develop muscle memory for skills of returning tennis balls to the opposite court, and can also improve reaction time and develop placement memory in the brain, namely, observe the location of the opponent(s) and return the ball away from the opponent(s)", paragraph [0022], emphasis added.

Reinprecht discloses a "sport court training targeting device for assisting in the instruction of court sports ..."column 2, lines 26 and 27. "Once the targeting panels have been placed on the side of the court opposite the player, the instructor can take his or her position alongside the targeting panels and begin the serving or drill lessons", column 2, lines 52 – 55. Further, "... it is a principal object of the invention to provide a two-dimensional targeting

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device, having five panels, that plays a fundamental role, and is an essential tool in the professional tennis instructor's repertoire of instruction methods. Further, it is an essential feature of the present invention that the targeting panels provide the instructor with a tool that is both flexible and adaptable in its use and the practical application", column 3, lines 4 – 11. "In a broader context, it is an object of the invention to provide a sport court training assemblage of targets for assisting in striking or throwing a ball or object to a specific location; ...", column 3, lines 3 – 33 (emphasis added).

Applicant respectfully submits that Reinprecht is clearly directed to training apparatus for training a player in striking or throwing a ball or object to a specific location, i.e. training muscle memory. The Examiner notes that Reinprecht discloses that "... the instructor can position the sport court training targets for creating difficult patterned drills, to mimic match scenarios, and develop playing strategies against the mimicked match scenarios", column 2, line 67 – column 3, line 3. Applicant respectfully submits that this disclosure still relates to a targeting drill, namely striking or throwing a ball or game object to a series of specific known in advance locations. Applicant respectfully submits that Reinprecht, and the above quoted sentence in particular, relied on by the Examiner does not disclose or suggest a training method set forth in claim 1 "... sequentially causing one or more opponents to appear at one or more locations on said playing surface in connection with projection of a game object to train said player to strike game objects away from an opponent", and in claim 10 "sequentially causing one or more opponents to appear at one or more locations on the opposite side of said tennis court in connection with projection of a tennis ball to train said tennis player to return tennis balls away from an opponent thereby teaching said tennis player to play the tennis court and training placement memory in the brain of said tennis player in addition to training muscle memory by returning said tennis balls" (emphasis added).

As noted in the Specification, "tennis players often train by returning balls projected by a ball machine or hit by a trainer to their side of a tennis court to develop their ball return skills." See paragraph [0001]. The targeting apparatus disclosed and taught by Reinprecht is consistent with this acknowledged prior art, namely training players to throw or strike a ball or object to a specific target. While the game of tennis and other games involving throwing or striking balls or game objects away from an opponent involve strategy, nothing in Reinprecht teaches or suggests

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training a player to strike game objects away from an opponent as set forth in independent claims 1 and 10. Further, while the game or tennis, and other games involving throwing or striking balls or game objects away from an opponent involve strategy, applicant respectfully submits that those games do not involve the steps of "... sequentially projecting a plurality of game objects toward one portion of said playing surface for striking by one or more players being trained; and sequentially causing one or more opponents to appear at one or more locations on said playing surface in connection with projection of a game object ..." set forth in claim 1, and "... sequentially projecting a plurality of tennis balls toward one side of a tennis court for return by said tennis player; and sequentially causing one or more opponents to appear at one or more locations on the opposite side of said tennis court in connection with projection of a tennis ball to train said tennis player to return tennis balls away from an opponent ..." set forth in claim 10.

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure (emphasis added). *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." MPEP §2142. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). MPEP §2143.03.

Regarding claims 1, 2, 4, 10 – 12 and 14 – 17 the Examiner stated, "Figure 1 of Reinprecht shows a typical tennis training session with an instructor on one side of the net and the students on the other side. See column, lines 41 *et seq.*" The Examiner also stated, "A typical training session often has the instructor sequentially project a plurality of game balls toward the student. See instant specification, paragraph [0001]". The Examiner further stated "It is noted that Reinprecht teaches the concept of placing targets at specific locations on the tennis court at which the students aim; striking balls to such locations (i.e., the corners as shown

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in Figure 1 of Reinprecht), art those designed to be shots away or out of reach by an opponent.” The Examiner further stated “Moreover, it is old and well-known in the art for team coaches to place people on the court (tennis, basketball, football, etc.) to simulate how a particular point or play is supposed to develop.” Lastly the Examiner stated, “As Reinprecht introduces the concept of striking particular targets on the court to practice particular shots (down-the –line, crosscourt, etc.) it would have been obvious to one of ordinary skill in the art to place a person at a location where a typical player might stand during that shot to better simulate actual game situations. The persons place at these locations can be considered simulated opponents for practice purposes.”

Regarding the description by the Examiner of teachings of Reinprecht, applicant respectfully submits that Reinprecht does not disclose or suggest that the target locations “are those designed to be shots away or out of reach by an opponent”. Rather, Reinprecht consistently teaches the use of a plurality of sport court targets for training purposes. Reinprecht states “each of the five targeting panels are geometrically shaded target zones that assist the student or the instructor determine accuracy of a serve, volley or shot. Once the targeting panels have been place on the side of the court opposite the player, the instructor can take his or her position alongside the targeting panels and begin the serving or the drill lessons”, column 2, lines 50 – 55. Further Reinprecht states “In a broader context, it is an object of the invention to provide a sport court training assemblage of targets for assisting in striking or throwing a ball or object to a specific location;”, column 3, lines 30 – 33; and “the teachings of the instant invention may be applied to virtually any sport having a court or like playing surface, where it is desirable to develop the skill of striking or throwing a ball or other object to a specific location; e.g. soccer, racquetball, squash, badminton, volleyball, paddle tennis, etc.”, column 4, line 66 – column 5, line 3; and “for assisting in the instruction of a game requiring the use of a court-type playing surface and accurate striking or throwing of a ball or object to one or more specific target areas of the playing surface,” column 6, lines 55 – 58. In sharp contrast applicant’s method provides that “... a player 10 can be trained to develop muscle memory for skills of returning tennis balls to the opposite court, and can also improve reaction time and develop placement memory in the brain, namely, observe the location of the opponent(s) and return the ball away from the opponent(s)”, (emphasis added) see paragraph [0022] of the specification.

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Regarding the statement by the Examiner applicant has not challenged Examiner's assertion "that it is well-known in the art for coaches to place people on the court to simulate how a particular point is supposed to develop". Applicant has not challenged Examiner's assertion because it does not disagree with the assessment as stated. However, applicant respectfully submits that Examiner's assertion of official notice and assessment of basic knowledge in the art does not disclose or suggest modification of Reinprecht to satisfy the claim limitations. Specifically, Examiner's assertion of common knowledge in the art does not suggest or teach modifying Reinprecht to provide "... sequentially projecting a plurality of game objects toward one portion of said playing surface for striking by one or more players being trained; and sequentially causing one or more opponents to appear at one or more locations on said playing surface in connection with projection of a game object to train said player to strike game objects away from an opponent." (emphasis added) as set forth in claim 1. Similarly, Examiner's assertion of common knowledge in the art does not suggest or teach modifying Reinprecht so that "... said step of sequentially causing said one or more opponents to appear comprises operating one or more simulated opponents to simulate the play of one or more players having a selected skill level." (emphasis added) as set forth in claims 2 and 14. Similarly, applicant respectfully submits Examiner's assertion of common knowledge in the art does not suggest or teach modifying Reinprecht for "sequentially causing one or more opponents to appear at one or more locations on the opposite side of said tennis court to train said tennis player to return tennis balls away from an opponent thereby teaching said tennis player to play the tennis court and training placement memory in the brain of said tennis player in addition to training muscle memory by returning said tennis balls." (emphasis added) as set forth in claim 10. Further, applicant respectfully submits Examiner's assertion of common knowledge in the art does not suggest or teach modifying Reinprecht so that "the step of operating said one or more simulated opponents comprises operating one or more simulated opponents to simulate one or two tennis players moving to a plurality of locations on the opposite side of the tennis court" (claim 15); "said step of operating said one or more simulated opponents comprises operating selected ones of said simulated opponents to cause an opponent to selectively appear as said one or more of said locations" (claim 16); or "said step of operating said one or more simulated opponents comprises operating selected ones of said simulated opponents to move said one or more

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simulated opponents to selectively appear at one or more of a plurality of locations on the opposite side of the tennis court" (claim 17).

Applicant challenges and traverses the additional assertions by the Examiner regarding basic knowledge in the art set forth for the first time in the November 15 Office Action in paragraph 3. Specifically, the Examiner asserted that "... placing actual people on the court to simulate a particular point would naturally allow for instructing a player to hit away from the simulated opponents ..."; "... it would have been naturally obvious for a coach, in placing people on the court, to illustrate a particular concept commensurate with the student's skill level ..."; "... by having a coach place people on the court, it is submitted that such would naturally allow the tennis player to train placement and muscle memory .."; and "... that the people situated on the court by the coach would naturally correspond to the recited simulated opponents ...".

Applicant respectfully submits that none of the above recited assertions by the Examiner has any evidentiary support, other than the disclosure in applicant's specification and claims. Further, and more importantly, none of the assertions by the Examiner in paragraph 3 of the November 15, 2005 Office Action suggest the method steps set forth in claim 1 "... sequentially projecting a plurality of game objects toward one portion of said playing surface ...; and sequentially causing one or more opponents to appear at one or more locations on said playing surface in connection with projection of a game object to train said player to strike game objects away from an opponent." (emphasis added); and in claim 10 "... sequentially projecting a plurality of tennis balls toward one side of a tennis court ...; and sequentially causing one or more opponents to appear at one or more locations on the opposite side of said tennis court in connection with projection of a tennis ball to train said tennis player to return tennis balls away from an opponent thereby teaching said tennis player to play the tennis court and training placement memory in the brain of said tennis player in addition to training muscle memory in the brain of said tennis player ..." (emphasis added).

Accordingly, applicant respectfully submits that applicant has more than adequately challenged and traversed the Examiner's assertion of basic knowledge of the art teaches or suggests modification of Reinprecht. Further, applicant respectfully submits that it is not appropriate to rely on the Examiner's assertion of basic knowledge of the art as the basis for

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modifying Reinprecht without evidentiary support. "It is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection is based (emphasis added). *In re Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697; *In re Ahlert*, 424 F2d at 1092, 165 USPQ 421." MPEP §2144.03, E.

In addition, applicant respectfully submits that modification of Reinprecht as suggested by the Examiner would render Reinprecht ineffective or inoperative for the purpose of Reinprecht's invention, namely providing "target zones that assist the student or the instructor determine the accuracy of a serve, volley or shot ...", col. 2, lines 51 - 52; "... to develop the skill of striking or throwing a ball or other object to a specific location ...", col. 5, lines 1 - 2; "... accurate striking or throwing of a ball or object to one or more specific target areas of the playing surface ...", col. 6, lines 56 - 58. Applicant respectfully submits that "placing actual people on the court to simulate a particular point" as suggested by the Examiner would disrupt and fundamentally change the invention disclosed and claimed by Reinprecht namely, a training target assembly to assist in training an athlete to accurately strike or throw a ball or game object to a specific target. Accordingly, applicant respectfully submits that there is no suggestion or motivation to combine Reinprecht and the Examiner's assertion of basic knowledge of the prior art. "If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is not suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)". MPEP §2143.01, V.

Also, applicant respectfully submits that modification of Reinprecht as suggested by the Examiner would change the principle of operation of Reinprecht, namely providing "target zones that assist the student or the instructor determine the accuracy of a serve, volley or shot ...", col. 2, lines 51 - 52; "... to develop the skill of striking or throwing a ball or other object to a specific location ...", col. 5, lines 1 - 2; "... accurate striking or throwing of a ball or object to one or more specific target areas of the playing surface ...", col. 6, lines 56 - 58. Reinprecht is directed to training accuracy of striking or throwing a ball or game object, whereas applicant's invention as set forth in the claim includes "... sequentially causing one or more opponents to appear at one or more locations on said playing surface in connection with projection of a game object to train said player to strike game objects away from an opponent", as set forth in claim 1, and

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“...sequentially causing one or more opponents to appear at one or more locations on the opposite side of said tennis court in connection with projection of a tennis ball to train said tennis player to return tennis balls away from an opponent thereby teaching said tennis player to play the tennis court and training placement memory in the brain of said tennis player in addition to training muscle memory by returning said tennis balls ...” as set forth in claim 10. “[I]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F. 2d 810, 123 USPQ 349 (CCPA 1959).” MPEP §2143.01, VI.

Thus, applicant respectfully submits that there is no teaching or suggestion in Reinprecht, applicant’s disclosure of the prior art or in Examiner’s assertion of basic knowledge of the prior art to modify Reinprecht or to combine reference teachings for the reasons set forth above. As stated above, “[i]t is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection is based (emphasis added). *In re Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697; *In re Ahlert*, 424 F2d at 1092, 165 USPQ 421.” MPEP §2144.03, E. Further, modification of Reinprecht as proposed by the Examiner would render Reinprecht inoperative for the purposes of Reinprecht and /or change the principle of operation of Reinprecht, namely to provide training and drill for certain defined tennis shots. Accordingly, applicant respectfully submits that the first criteria required to establish a *prima facie* case of obviousness has not been met. Further, applicant respectfully submits that the only suggestion to modify Reinprecht to produce the claimed invention can be found in applicant’s disclosure in this application, and as set forth above, “The teaching or suggestion to make the claimed combination and the reasonable expectation of success, must both be found in the prior art, and not based on applicant’s disclosure (emphasis added). *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).” MPEP §2142.

Likewise, the third criteria required to establish a *prima facie* case of obviousness is not met since Reinprecht taken alone or in combination with applicant’s disclosure of the prior art or in combination with Examiner’s assertion of common knowledge of the prior art simply does not disclose or suggest all the elements of claims 1, 2, 4, 10 – 12 and 14 – 17 for all the reasons discussed above. Applicant respectfully submits that applicant’s description of the prior art, “For

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example, tennis players often train by returning balls projected by a ball machine or hit by a trainer to their side of a tennis court to develop their ball return skills.” (paragraph [0001]) and “When a trainer is used to hit tennis balls to the side of the tennis court occupied by the player being trained there can be a tendency for the player being trained to hit the ball back to the trainer so that a volley can be sustained.” (paragraph [0021]) does not disclose or suggest the method claimed in claims 1, 2, 4, 10 – 12 and 14 – 17 as pointed out above. Likewise, applicant respectfully submits that Reinprecht is directed to “... a sport court training assemblage of targets for assisting in striking or throwing a ball or object to a specific location ...” (column 3, lines 31 – 33), and “... develop the skill of striking or throwing a ball or other object to a specific location; ...” (column 5, line 1) does not disclose or suggest the method claimed in claims 1, 2, 4, 10 – 12 and 14 – 17 for all the reasons set forth above. Likewise, applicant respectfully submits that Examiner’s assertion that it is well known in the art for coaches to place people on the court to simulate how a particular point is supposed to develop does not disclose or suggest the method claimed in claims 1, 2, 4, 10 – 12 and 14 – 17 for all the reasons set forth above. Further, applicant respectfully submits that it is not appropriate to rely on the Examiner’s assertion of basic knowledge of the art as the basis for modifying Reinprecht without evidentiary support. “It is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection is based (emphasis added). *In re Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697; *In re Ahlert*, 424 F2d at 1092, 165 USPQ 421.” MPEP §2144.03, E.

Thus, applicant respectfully submits that the rejection of claims 1, 2, 4, 10 – 12 and 14 – 17 as unpatentable over Reinprecht, applicant’s admission of the prior art and Examiner’s assertion of common knowledge in the art fails to satisfy the third criteria required to establish *prima facie* obviousness, namely that “all the claim limitations must be taught or suggested by the prior art”. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). MPEP §2143.03.

Accordingly, applicant respectfully submits that the rejection of claims 1, 2, 4, 10 – 12 and 14 – 17 is defective for failing to establish *prima facie* obviousness of the rejected claims in view of the cited prior art since neither the first criteria nor the third criteria necessary to establish *prima facie* obviousness have been met, and the rejection of claims 1, 2, 4, 10 – 12 and 14 – 17 should be withdrawn.

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Regarding claims 3 and 13 the Examiner stated "tennis ball machines are old and well-known in the art to sequentially project balls to players". Applicant respectfully submits that the rejection of claims 3 and 13 is defective for failing to establish *prima facie* obviousness for the same reasons as set forth above with respect to claims 1 and 10 on which claims 3 and 13 respectively depend. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1956 (Fed. Cir. 1988)." MPEP §2143.03

The Examiner has acknowledged that claims 18 – 20 are directed to allowable subject matter. Applicant respectfully requests that the requirement to rewrite claims 18 – 20 in independent form including all the limitations of the base claim and any intervening claims be deferred.

Summary

1. Applicant respectfully submits that the Examiner has mischaracterized Reinprecht by suggesting that Reinprecht teaches anything more than training the skill of throwing or striking a ball or other object to targets at specific locations. The quoted language bridging column 2, line 66 – column 3, line 3 suggests no more than positioning training targets for drills, drills that will be known in advance to the player being trained since the targets are positioned prior to the commencement of the drill. Applicant respectfully submits that nothing in Reinprecht discloses or suggests "... sequentially causing one or more opponents to appear at one or more locations on said playing surface in connection with projection of a game object to train said player to strike game objects away from an opponent" as set forth in claim 1, or "... sequentially causing one or more opponents to appear at one or more locations on the opposite side of said tennis court in connection with projection of a tennis ball to train said tennis player to return tennis balls away from an opponent thereby teaching said tennis player to play the tennis court and training placement memory in the brain of said tennis player in addition to training muscle memory by returning said tennis balls" as set forth in claim 10.

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2. Applicant respectfully submits that the Examiner's assessment of common knowledge in the art does not teach modifying Reinprecht to provide the steps recited in claims 1, 2&14, 10, 15, 16 and 17 as set forth above on pages 15 and 16.

3. Applicant has traversed and challenged the assertions of common knowledge by the Examiner as set forth above in detail. Further, in absence of documentary evidence "[I]t is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection is based (emphasis added). *In re Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697; *In re Ahlert*, 424 F2d at 1092, 165 USPQ 421." MPEP §2144.03, E. Applicant respectfully submits that unless documentary support is provided by the Examiner to support the Examiner's assertions regarding common knowledge the rejection of claims 1 – 4 and 10 – 17 is defective and must be withdrawn.

4. For all the reasons set forth above applicant respectfully submits that the rejections of claims 1 – 4 and 10 – 17 fail to establish *prima facie* obviousness and are thus defective and should be withdrawn.

Upon allowance of generic claims 1 – 4 applicant respectfully requests that non-elected species claims 5 – 9 be considered and allowed.

In view of the Examiner's earlier restriction requirement, applicant retains the right to present claims 21 – 50 is a divisional application.

For the reasons presented above, it is believed that the application, as now presented, is in condition for allowance, and that there are no remaining issues in the application. Allowance of the application as now presented, and passing of the application to issue are respectfully solicited.

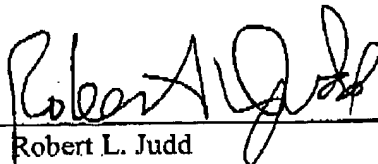
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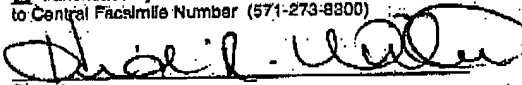
Further and favorable action is respectfully requested.

Respectfully submitted,

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Dated: April 20, 2006

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